Abstract of the Disclosure:

In an adaptive array antenna receiving apparatus which is used in a CDMA communication system and which includes a predetermined number L (L is an integer greater than 1) of fingers, no correlation exists between respective fingers. An adaptive update algorithm of calculating an antenna weighting factor by the use of an N-order correlation matrix independently for the respective fingers is equivalent to an adaptive update algorithm of calculating an (N x L)-order correlation matrix. In the adaptive array antenna receiving apparatus, the antenna weighting factor is controlled by the use of the adaptive update algorithm independently for the respective fingers so that a mean square of a common error signal produced by a subtractor (8) after rake combination by a rake combining circuit (6) is minimized. In this manner, the amount of calculation in the adaptive update algorithm used in all MMSE control circuits is considerably reduced proportionally from $(NL)^2$ to N^2L. As a consequence, the processing load upon the DSP can be decreased.